MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT

Chrome Deposit Corporation
6640 Melton Road
Portage, Indiana 46368

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 127-11699-00093	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary chromium electroplating source.

Authorized Individual:	George Wright
Source Address:	6640 Melton Road, Portage, Indiana 46368
Mailing Address:	6640 Melton Road, Portage, Indiana 46368
Phone Number:	219 - 763 - 1571
SIC Code:	3470
County Location:	Porter
County Status:	Nonattainment for Ozone Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One (1) hard chrome plating tank, identified as Tank B, constructed prior to December 16, 1993 and reconstructed as preventive maintenance in 1999, using a hexavalent chromium bath and having a rectifier capacity of 15,000 amps and a maximum cumulative rectifier capacity of 88,200,000 amp-hours, equipped with an evaporator/cooler and a packed bed/ composite mesh pad scrubber as control, and exhausting to stack B.

(b) One (1) hard chrome plating tank, identified as Tank C/D, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 30,000 amps and a maximum cumulative rectifier capacity of 176,400,000 amp-hours, equipped with an evaporator/cooler and a packed bed/ composite mesh pad scrubber as control, and exhausting to stack C/D.

(c) Two (2) wash tanks, identified as Wash Tank B and Wash Tank C/D, using 250 pounds per hour of water and 5 pounds per hour of soap, constructed prior to December 16, 1993.

(d) Two (2) spent wash water holding tanks, identified as Nos. 1 and 2, with associated atmospheric evaporators, exhausting to stacks WR#1 and WR#2.

(e) Three (3) hot water boilers, constructed in 1984, fired by natural gas, with associated heat exchangers, exhausting to stacks B1, B2 and B3, capacity: 0.413 million British thermal units per hour, each.

(f) One (1) forced air furnace, identified as 2FF, maximum heat input capacity: 0.117 million British thermal units per hour.

(g) One (1) forced air furnace, identified as CRF, maximum heat input capacity: 0.075 million British thermal units per hour.

(h) One (1) forced air furnace, identified as LRF, maximum heat input capacity: 0.084 million British thermal units per hour.

(i) One (1) forced air furnace, identified as OF, maximum heat input capacity: 0.054 million British thermal units per hour.

(j) One (1) make-up air heater, identified as Rapid, maximum heat input capacity: 1.75 million British thermal units per hour.

(k) One (1) make-up air heater, identified as Thermo cycler, maximum heat input capacity: 0.4 million British thermal units per hour.

(l) One (1) hot water heater, identified as LRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

(m) One (1) hot water heater, identified as CRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

(n) Two (2) EDT surface machining machines equipped with torit particulate air filters, one exhausting to stack TF and one exhausting inside the building, capacity: 40,000 pounds per hour, total.

(o) One (1) wet finishing surface grinder, capacity: 20,000 pounds per hour.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD and Emission Offset Minor Source Status [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-3]

(a) The total source potential to emit of all criteria pollutants is less than 250 tons per year and the potential to emit of VOC and NO_X are less than 25 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 2-3 (Emission Offset) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit of VOC or NO_X to 25 tons per year, 10 tons per year of any single hazardous air pollutant, twenty-five tons per year of any combination of hazardous air pollutants, or 100 tons per year of any other regulated pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAM prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

(1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

(2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least sixty (60) days before the intended test date for all chromium electroplating facilities and no later than thirty-five (35) days prior to the intended test date for all other facilities. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two (2) weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a) (1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the

certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.16 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) hard chrome plating tank, identified as Tank B, constructed prior to December 16, 1993 and reconstructed as preventive maintenance in 1999, using a hexavalent chromium bath and having a rectifier capacity of 15,000 amps and a maximum cumulative rectifier capacity of 88,200,000 amp-hours, equipped with an evaporator/cooler and a packed bed/ composite mesh pad scrubber as control, and exhausting to stack B.

(b) One (1) hard chrome plating tank, identified as Tank C/D, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 30,000 amps and a maximum cumulative rectifier capacity of 176,400,000 amp-hours, equipped with an evaporator/ cooler and a packed bed/ composite mesh pad scrubber as control, and exhausting to stack C/D.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1][40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to Tanks B and C/D. A copy of this rule is attached. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)][40 CFR 63.343(a)(1)&(2)]

(a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during times of malfunction.

(b) The hard chromium electroplating tanks, identified as B and C/D above, are considered a large, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm)[6.6 x 10^{-6} gr/dscf].

D.1.4 Work Practice Standards [40 CFR 63.342(f)]

The following work practice standards apply to Tanks B and C/D:

(a) At all times, including periods of startup, shutdown, malfunction, and excess emissions, the Permittee shall operate and maintain tanks B and C/D, including the packed bed/composite mesh pad systems and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP)

required by Condition D.1.6.

(b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.6.

(c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.

(d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.

(e) Based on the results of the determination made under paragraph (b), IDEM, OAM may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAM finds that the plan:

(A) Does not address a malfunction or period of excess emissions that has occurred;

(B) Fails to provide for the operation of tanks B and C/D, the air pollution control techniques, or the packed bed/composite mesh pad systems and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or

(C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit is required for these facilities and the packed bed/composite mesh pad systems.

D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

(a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of the tanks. The OMP shall specify the operation and maintenance criteria for tanks B and C/D, the packed bed/composite mesh pad systems, and monitoring equipment, and shall include the following elements:

(1) For the packed bed/composite mesh-pad system (PBS/CMP):

(A) Quarterly visual inspection of the device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device;

(B) Quarterly visual inspection of the back portion of the mesh pads closest to the fan to ensure there is no breakthrough of chromic acid mist;

(C) Quarterly visual inspection of the duct work from the tanks to the control devices to ensure there are no leaks;

(D) Perform washdown of the composite mesh pads in accordance with manufacturer's recommendations.

(2) A standardized checklist to document the operation and maintenance criteria for tanks B and C/D, the packed bed/composite mesh pad systems, and monitoring equipment;

(3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur;

(4) A systematic procedure for identifying malfunctions and periods of excess of tanks B and C/D, the packed bed/composite mesh pad systems, and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.

(b) The Permittee may use applicable standard operating procedures (SOP) manuals, occupational safety and health administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.5, as the OMP provided the alternative plans meet the criteria listed above in Condition D.1.6(a).

(c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or a period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining tanks B and C/D, the packed bed/composite mesh pad systems, and monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.

(d) If actions taken by the Permittee during periods of malfunction or periods of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.

(e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of tanks B and C/D or until tanks B and C/D are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMP on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.7 Monitoring to Demonstrate Continuous Compliance [40 CFR 63.343 (c)(1)]

(a) Performance tests demonstrating initial compliance for tank B were performed on January 6, 1997 and January 7, 1997.

During the initial performance tests, it was determined that the average pressure drop across the system was 1.66 inches of water and the average outlet chromium concentration is 0.0035 mg/dscm.

(b) Performance tests demonstrating initial compliance for tank C/D were performed on December 18, 1996 and December 19, 1996.

During the initial performance tests, it was determined that the average pressure drop across the system was 1.84 inches of water and the average outlet chromium concentration is 0.0014 mg/dscm.

(c) The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the tanks are in compliance. If testing is required by the IDEM, compliance with the limits specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with the provisions of 40 CFR 63.344 and Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)]

(a) Pursuant to 40 CFR 63.343(c)(3) and 63.343(c)(1)(ii), when using a packed bed scrubber in conjunction with a composite mesh pad system to comply with the limits specified in Condition D.1.3, the Permittee shall monitor and record the pressure drop across the composite mesh pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh pad system shall be operated within ± 1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.

(b) Tank operation or operating time is defined as that time when a part is in the tanks and the rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operation time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts is considered operating time.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Record Keeping Requirements [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.1.3, D.1.4 and D.1.6 using the forms provided with this permit. These records shall be maintained in accordance with the Section C condition entitled “General Record Keeping Requirements” of this permit, and include a minimum of the following:

(a) Inspection records for the packed bed/composite mesh pad systems and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 and D.1.8 have taken place. The record can take the form of a checklist and should identify the following:

(1) The device inspected;

(2) The date of inspection;

(3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and

(4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.

(b) Records of all maintenance performed on tanks B and C/D, the packed bed/composite mesh pad systems and monitoring equipment.

(c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks B and C/D, the packed bed/composite mesh pad systems and monitoring equipment.

(d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks B and C/D, the packed bed/composite mesh pad systems and monitoring equipment as indicated by monitoring data collected in accordance with this condition.

(e) Records of actions taken during periods of malfunction when such actions are inconsistent with the OMP.

(f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.

(g) Test reports documenting results of all performance tests.

(h) And all measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.

(i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.

(j) The total process operating times, as defined by D.1.8(b), of each tank (B and C/D), during the reporting period.

(k) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

(l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.10.

D.1.10 Reporting Requirements [326 IAC 3-6-4(b)][40 CFR 63.344(a), 63.345 & 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) Initial Notifications
The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR Part 63, Subpart N. The notification shall be submitted no later than one hundred eighty (180) days after the compliance date and shall contain the information listed in 40 CFR 63.347(c)(1).

(2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR 63.347(e)(2).

(A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).

(B) The NCS for tanks B and C/D shall be submitted to IDEM, OAM immediately.

(3) Notification of Construction or Reconstruction
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks B and C/D without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.

(A) The NCR shall contain the information identified in 40 CFR 63.345(b)(2) and (3).

(B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.

(C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks B and C/D serves as this notification.

(D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Performance Test Results
The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report
The Permittee shall prepare summary reports to document the ongoing compliance status of tanks B and C/D using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks B and C/D are located at a site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

(1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).

(A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.

(B) Following the first year of reporting, the report shall be completed on a

calendar year basis with the reporting period covering from July 1 to December 31.

(2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:

(A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.8(b) for the reporting period; or

(B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.8(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Two (2) wash tanks, identified as Wash Tank B and Wash Tank C/D, using 250 pounds per hour of water and 5 pounds per hour of soap, constructed prior to December 16, 1993.

(d) Two (2) spent wash water holding tanks, identified as Nos. 1 and 2, with associated atmospheric evaporators, exhausting to stacks WR#1 and WR#2.

(e) Three (3) hot water boilers, constructed in 1984, fired by natural gas, with associated heat exchangers, exhausting to stacks B1, B2 and B3, capacity: 0.413 million British thermal units per hour, each.

(f) One (1) forced air furnace, identified as 2FF, maximum heat input capacity: 0.117 million British thermal units per hour.

(g) One (1) forced air furnace, identified as CRF, maximum heat input capacity: 0.075 million British thermal units per hour.

(h) One (1) forced air furnace, identified as LRF, maximum heat input capacity: 0.084 million British thermal units per hour.

(i) One (1) forced air furnace, identified as OF, maximum heat input capacity: 0.054 million British thermal units per hour.

(j) One (1) make-up air heater, identified as Rapid, maximum heat input capacity: 1.75 million British thermal units per hour.

(k) One (1) make-up air heater, identified as Thermo cycler, maximum heat input capacity: 0.4 million British thermal units per hour.

(l) One (1) hot water heater, identified as LRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

(m) One (1) hot water heater, identified as CRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

(n) Two (2) EDT surface machining machines equipped with torit particulate air filters, one exhausting to stack TF and one exhausting inside the building, capacity: 40,000 pounds per hour, total.

(o) One (1) wet finishing surface grinder, capacity: 20,000 pounds per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from each of the two (2) EDT machines shall be limited to less than 19.2 pounds per hour, each, taking

into account control by the torit air filters, when operating of a process weight rate of 20,000 pounds per hour, each.

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the wet finishing surface grinder shall be limited to less than 19.2 pounds per hour when operating of a process weight rate of 20,000 pounds per hour.

The limitations were calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.2.2 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Since the emission limitation calculated in the following equation is greater than 0.6 pounds per million British thermal unit, each of the three (3) boilers are limited to emissions of 0.6 pound per million British thermal units.

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.2.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limits specified in Conditions D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: Chrome Deposit Corporation PHONE NO. : 219 - 763 - 1571
LOCATION: (CITY AND COUNTY) Portage / Porter
PERMIT NO. 127-11699 AFS PLANT ID: 127-00093 AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19_____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*** Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT
(Complete this form for each affected tank)

Source Name: Chrome Deposit Corporation
Source Address: 6640 Melton Road, Portage, Indiana 46368
Mailing Address: 6640 Melton Road, Portage, Indiana 46368
MSOP No.: 127-11699-00093

Tank ID #: _____
Type of process: *[Hard, Decorative, Anodizing]*
Monitoring Parameter: *[e.g., Surface tension of the electroplating bath]*
Parameter Value: *[e.g., 45 dynes per centimeter]*
Limits: Total chromium concentration may not exceed _____ mg/dscm

This form is to be used to report compliance for the Chromium Electroplating NESHAP only.
The frequency for completing this report may be altered by the IDEM, OAM, Compliance Branch.

Companies classified as a major source: submit this report no later than 30 days after the end of the reporting period.
Companies classified as an area source: complete this report no later than 30 days after the end of the reporting period, and retain on site unless otherwise notified.

This form consists of 2 pages **Page 1 of 2**

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:
TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:

MAJOR AND AREA SOURCES: CHECK ONE	
9	NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.
9	THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).

AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY: IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC
HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY: LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT

ATTACH A SEPARATE PAGE IF NEEDED **Page 2 of 2**

IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN EXPLANATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:
DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS REPORT:
ADDITIONAL COMMENTS:

ALL SOURCES: CHECK ONE
9 I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.
9 THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Chrome Deposit Corporation**
Address:	**6640 Melton Road**
City:	**Portage, Indiana 46368**
Phone #:	**219 - 763 - 1571**
MSOP #:	**127-11699-00093**

I hereby certify that Chrome Deposit Corporation is
9 still in operation.
9 no longer in operation.

I hereby certify that Chrome Deposit Corporation is
9 in compliance with the requirements of MSOP **127-11699-00093**.
9 not in compliance with the requirements of MSOP **127-11699-00093**.

Authorized Individual (typed):	**George Wright**
Title:	
Signature:	
Date:	

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for Operation

Source Name: **Chrome Deposit Corporation**
Source Location: **6640 Melton Road, Portage, Indiana 46368**
County: **Porter**
Construction Permit No.: **MSOP 127 - 11699 - 00093**
SIC Code: **3470**
Permit Reviewer: **CarrieAnn Ortolani**

On February 15, 2000, the Office of Air Management (OAM) had a notice published in the Chesterton Tribune, Chesterton, Indiana, stating that Chrome Deposit Corporation had applied for a Minor Source Operating Permit to operate stationary chromium electroplating source with evaporator/coolers and packed bed/ composite mesh pad scrubbers as control. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 10, 2000, Ronald A. Bahr, Vice President of Liberty Engineering, Inc., consultant to the applicant, and George Wright, Plant Manager of Chrome Deposit Corporation, submitted comments on the proposed construction permit. The comments and corresponding responses are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded.**

Comment 1:

Page 4 - Section A.2(d), Page 20 - Section D.2, Technical Support Document - Page 1(d): The permit application specified two atmospheric evaporators associated with the spent wash water holding tanks. Please revise the wording to include the spent wash water atmospheric evaporators. We would suggest wording such as the following:

Two (2) spent wash water holding tanks identified, as Nos. 1 and 2, with associated atmospheric evaporators exhausting to stacks WR#1 and WR#2 .

Response 1:

Section A.2(d) and the facility description (f), now (d), in Section D.2 have been revised as follows:

Two (2) spent wash water holding tanks, identified as Nos. 1 and 2, **with associated atmospheric evaporators,** exhausting to stacks WR#1 and WR#2.

Comment 2:

Page 4 - Section A.2(e), Page 20 - Section D.2, Technical Support Document -Page 1 (e) and Page 8 - State Rule Applicability: The permit application specified three hot water boilers constructed in August, 1994 with heat exchangers. Please revise the wording to correct the construction date and to include the heat exchangers. We would suggest wording such as the following:

> Three (3) hot water boilers, constructed in 1994, fired by natural gas, exhausting to stacks B1, B2, and B3, capacity 0.413 million BTUH each, with associated heat exchangers.

Response 2:

Section A.2 (e) and the facility description (g), now (e), in Section D.2 have been revised as follows:

Three (3) hot water boilers, constructed in 1984, fired by natural gas, **with associated heat exchangers,** exhausting to stacks B1, B2 and B3, capacity: 0.413 million British thermal units per hour, each.

Comment 3:

Pages 6 & 7 - Section B, General Construction Conditions - Paragraphs B.4 through B.6: The application which was made to IDEM as required under the Indiana Administrative Codes (IAC) was for a minor source operating permit. The three paragraphs B.4 through B.6 are written for a construction permit. Since the application is for existing equipment at an existing plant which has not previously required an operating permit under IAC regulations we question that the three paragraphs may be misleading and unnecessary. If for some administrative reason IDEM considers the construction permit wording necessary for this existing equipment please tell us.

Response 3:

Section B has been replaced with the following Section B:

~~**SECTION B GENERAL CONSTRUCTION CONDITIONS**~~
~~THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.~~

~~B.1 Permit No Defense [IC 13]~~
~~This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.~~

~~B.2 Definitions~~
~~Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.~~

~~B.3 Effective Date of the Permit [IC13-15-5-3]~~
~~Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.~~

~~B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]~~
~~Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.~~

~~B.5 Modification to Permit [326 IAC 2]~~
~~Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).~~

~~B.6 Minor Source Operating Permit [326 IAC 2-6.1]~~
~~This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:~~

~~(a) The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.~~

~~(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.~~

~~(2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.~~

~~(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.~~

~~(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.~~

~~(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).~~

~~(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.~~

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless

modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

Comment 4:

Page 6 - Paragraph B.6(a): If the paragraph is determined to be necessary the referenced "attached Affidavit of Construction" is missing from the draft permit. Please provide the document if the paragraph is considered necessary so we may review it during this draft review phase.

Response 4:

Condition B.6 has been removed as indicated in Response 3.

Comment 5:

Page 9 - Paragraph C.4(e): The use of photographic equipment within the facility is considered confidential due to proprietary methods and processes being used at the facility. We would request that the paragraph be revised to acknowledge that all photographs taken inside the facility are confidential and must be treated as such.

Response 5:

Condition C.4 (e) has been revised as follows:

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. ~~[326 IAC 2-7-6(6)]~~

(1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

(2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

Comment 6:

Page 9 - Paragraph C.6: The wording of this paragraph identifies the document as "This permit to construct and operate". As indicated in Comment #3 we are applying for a minor source operating permit. Unless there is some administrative reason which requires this to also be a construction permit we would request that the wording be modified to indicate that this is a permit to operate.

Response 6:

Condition C.6 is revised as follows:

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to ~~construct and~~ operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

Comment 7:

Page 11 - Paragraph C.12(b): Under the conditions of the federal NESHAP and this draft permit (Paragraph D.1.5) the facility is only required to check the primary compliance parameter, the pressure drop across the mesh pad of each scrubber, once per day. An exceedance occurs if this pressure drop reading exceeds the limits determined by performance testing. The operating time of the unit outside of the limits is known to be no greater than the operating time of the system since the previous compliance reading. Since the wording of paragraph C.12 (b) requires notification within 4 daytime business hours of a malfunction and the wording of paragraph D.1.5 requires only daily readings, we are requesting that the notification wording be modified to define the beginning of the malfunction for purposes of this notification to be that time when the personnel first have knowledge of the malfunction. Normal procedures in place at Chrome Deposit Corp. utilize readings on an eight hour basis rather than 24 hours in order to anticipate any problems and also require shut-down of the unit as soon as the readings approach the pressure drop limits.

We would also request that the term daytime business hours be defined and notification telephone and facsimile numbers be written into paragraph C.12 to ensure proper communications.

Response 7:

The language used in Condition C.12 is identical to the language used in 326 IAC 1-6-2. The telephone number is (317) 233-0178 and the facsimile number is (317) 233-5967. The facsimile number is provided on the Malfunction Report Form. Daytime business hours are 9AM to 5PM. A malfunction cannot be reported until it is discovered and a malfunction cannot be assumed to have begun until it is discovered. Therefore, since Condition C.12 uses the same language as 326 IAC 1-6-2, there are no changes to the permit as a result of this comment.

Comment 8:

Page 13 - Paragraph C.14 (c)(4): This paragraph refers to:

“response steps performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit,”.

The draft permit does not contain this section. Please remove this paragraph from the permit or revise the draft permit to include the referenced section.

Response 8:

Condition C.14 (c)(4) shall be revised as follows:

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate ~~whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and~~ whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

Comment 9:

Page 13 - Paragraph C.15, Page 14 - Paragraph C.16, Page 19 - Paragraph D.1.8, Page 24 & 25 - Ongoing Compliance Status Report, Page 26 - Minor Source Operating Permit Annual Notification: Under the federal NESHAP requirements for an area source such as Chrome Deposit Corporation a source which is in compliance with the regulation is required to prepare an annual summary report documenting the ongoing compliance of the facility and retain the report on-site. If particular levels are exceeded as defined in 40 CFR Part 63.347((h)(2) a semi-annual report is submitted to the Administrator.

Under the draft permit, a source which is in compliance with the federal regulation and the state permit is required to prepare and submit five separate reports at different times to the Office of Air Management.

We realize that IDEM has the authority under 326 IAC 2-6.1-2 to require reporting as needed to ensure compliance, but we feel that the increased reporting levels proposed in the draft permit are causing a significant paperwork burden on the facility which could be reduced if the federal NESHAP standard or an annual format was followed without compromising compliance monitoring. The variety of reports required in the draft permit at different times, i.e.,

March 1 of the following year for the prior calendar year (C.16(c)) for the annual notice
Seven months after issuance of the permit (C.15) for Semi-annual Compliance Monitoring Report
Thirteen months after issuance of the permit (C.15) for Semi-annual Compliance Monitoring Report
July 30 (D.1.8(d)(1)) for Ongoing Compliance Status Report
January 30 (D.1.8(d)(1)) for Ongoing Compliance Status Report

even when the source is in full compliance seem questionable in our opinion in ensuring the compliance of the facility. Based upon our experience at facilities in other states an annual summary report submitted to the Compliance Data Section of the Office of Air Management which includes all of the information outlined in the five reports specified in the draft permit could certainly ensure compliance when a source has been in compliance throughout the year. We are requesting that the five reports outlined in the draft permit be combined into one annual summary report which the facility would submit to IDEM.

Response 9:

The reports required by Conditions C.15 and C.16 are necessary for compliance with 326 IAC 2-6.1-2 and 326 IAC 2-6.1-5(a)(5). The reporting requirements previously in Condition D.1.8 are revised in Condition D.1.10 as a result of the IDEM changes presented at the end of this document. As indicated in Condition D.1.10, Ongoing Compliance Status Reports are only prepared annually and

are kept on site if the tanks remain in compliance. The reports required by D.1.10 are necessary for compliance with 40 CFR 63.345 and 40 CFR 63.347.

Comment 10:

Page 15 - Paragraph D.1.2(b)(1), paragraph D.1.2(b)(4)(B), paragraph D.1.3, paragraph D.1.4(a), paragraph D.1.4(c), paragraph D.1.7, paragraph D.1.8: The control system is a combination packed bed/composite mesh pad system for both scrubbers B and C/D. Please revise the description.

Response 10:

The control device description has been revised in Section D.1. For clarity, the revisions are indicated along with the IDEM changes presented at the end of this document.

Comment 11:

Page 17 - Paragraph D.1.4(d): To avoid confusion please define “working days” for the permit as used in this paragraph. Are these working days for IDEM, Monday - Friday, or working days for Chrome Deposit Corp., seven days a week?

Response 11:

Condition D.1.4(d), now D.1.6(d), refers to working days for Chrome Deposit Corporation.

Comment 12:

Page 17 - Paragraphs D.1.5: A typographical error shows two paragraphs (b).

Response 12:

Condition D.1.5 has been revised as indicated in the IDEM changes presented at the end of this document.

Comment 13:

Page 17 - Paragraphs D.1.5(c) and (d), Technical Support Document - Page 7 & 8 (d) (2) & (3): We request that the change which is being proposed by the USEPA for the chromium electroplating NESHAP regarding the increase of the upper limit from + 1 inch of water column to + 2 inches of water column be addressed in this section of the permit in a manner which will allow the change to be adopted once it is part of the federal NESHAP without changing the permit.

Response 13:

The current requirement is for an upper limit of +1 inch of water column. If the requirement changes in the future, the permit can be revised.

Comment 14:

Page 18 - Paragraph D.1.7(a): It would seem that the wording “compliance with Conditions D.1.1 and D.1.4" might be in error. Should the wording should have been - compliance with Conditions D.1.1 through D.1.5 ?

The draft permit refers to maintaining records “using the forms provided with this permit”. No forms were provided with the draft permit. Please provide the forms which are being referred to so that they may be reviewed. The facility currently utilizes its own standard forms for this record keeping require-

ment.

Response 14:

Condition D.1.7 has been revised as indicated in the IDEM changes at the end of this document.

Comment 15:

Page 19 - Paragraph D.1.7(b): As discussed in our telephone conversation there is no current federal definition of "operating time" related to the chromium electroplating NESHAP. We feel that the definition being proposed in the draft permit may be suitable for a more traditional hard chrome electroplating facility in which the typical time when the rectifier is active is in the range of ten hours or more. Since the typical plating time for items at Chrome Deposit Corporation is in the range of ten minutes and the typical time between rolls is in the range of 15 minutes the proposed definition results in what we feel is both an inaccurate and difficult measurement.

We propose either of two options for the definition of "operating time". Option one would count the entire time the operators are on the job as operating time. In this definition a 24 hour day would be counted as 24 hours of operation if operators were staffing the system for the whole day. This option is the current definition of operating time being used at the facility.

A second option would involve the installation of non-resettable hour meters on the two systems. The hour meters would record the time a rectifier was providing power to the system as "operating time". In system C/D which utilizes two stations the operating time would be counted as any time either station was supplied with power, but would not double the operating time if both stations were active.

Response 15:

Non-resettable hour meters will be necessary to record the time a rectifier was providing power to the system, and, thus, determine operating time.

Comment 16:

Page 20 - Section D.2: A typographical error begins the emissions unit listing with (e) rather than (a).

Response 16:

The lettering in the Emissions Unit Description Box should match the lettering for the same equipment in Section A.2. The Emissions Unit Description Box in Section D.2 has been revised as follows:

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

~~(e)~~**(c)** Two (2) wash tanks, identified as Wash Tank B and Wash Tank C/D, using 250 pounds per hour of water and 5 pounds per hour of soap, constructed prior to December 16, 1993.

~~(f)~~**(d)** Two (2) spent wash water holding tanks, identified as Nos. 1 and 2, **with associated atmospheric evaporators,** exhausting to stacks WR#1 and WR#2.

~~(g)~~**(e)** Three (3) hot water boilers, constructed in 1984, fired by natural gas, **with associated heat exchangers,** exhausting to stacks B1, B2 and B3, capacity: 0.413 million British thermal units per hour, each.

~~(h)~~**(f)** One (1) forced air furnace, identified as 2FF, maximum heat input capacity: 0.117 million British thermal units per hour.

~~(i)~~**(g)** One (1) forced air furnace, identified as CRF, maximum heat input capacity: 0.075 million British thermal units per hour.

~~(j)~~**(h)** One (1) forced air furnace, identified as LRF, maximum heat input capacity: 0.084 million British thermal units per hour.

~~(k)~~**(i)** One (1) forced air furnace, identified as OF, maximum heat input capacity: 0.054 million British thermal units per hour.

~~(l)~~**(j)** One (1) make-up air heater, identified as Rapid, maximum heat input capacity: 1.75 million British thermal units per hour.

~~(m)~~**(k)** One (1) make-up air heater, identified as Thermo cycler, maximum heat input capacity: 0.4 million British thermal units per hour.

~~(n)~~**(l)** One (1) hot water heater, identified as LRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

~~(o)~~**(m)** One (1) hot water heater, identified as CRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

~~(p)~~**(n)** Two (2) EDT surface machining machines equipped with torit particulate air filters, one exhausting to stack TF and one exhausting inside the building, capacity: 40,000 pounds per hour, total.

~~(q)~~**(o)** One (1) wet finishing surface grinder, capacity: 20,000 pounds per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 17:

Page 20 - Paragraph D.2.1(a): The regulation refers to emissions from the process. Since the emissions are ducted through the Torit air filters we feel that the wording of this paragraph should indicate that the limit is imposed on the emissions from the air filter unit, not the input into this control unit.

Response 17:

Condition D.2.1 is revised as follows:

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from each of the two (2) EDT machines shall be limited to less than 19.2 pounds per hour, each, **taking into account control by the torit air filters,** when operating of a process weight rate of 20,000 pounds per hour, each.

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from ~~each of~~ the wet finishing surface grinder shall be limited to less than 19.2 pounds per hour when operating of a process weight rate of 20,000 pounds per hour.

The limitations were calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Comment 18:

Page 21 - Paragraph D.2.1(b): The wording of the paragraph could be changed to eliminate the phrase “from each of” since there is only one surface grinder.

Response 18:

See Response 17.

Comment 19:

Page 21 - Paragraph D.2.2, Technical Support Document - Page 8 - State Rule Applicability: In our opinion each boiler is limited to 0.6 pound per million BTU’s under the regulation. We request that the phrase “the three (3) boilers are limited to emissions of 0.6 pound per million British thermal units” be changed to indicate that each of the three boilers is limited to emissions of 0.6 pound per million British thermal units.

Response 19:

For clarity, Condition D.2.2 is revised as follows:

D.2.2 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Since the emission limitation calculated in the following equation is greater than 0.6 pounds per million British thermal unit, **each of** the three (3) boilers are limited to emissions of 0.6 pound per million British thermal units.

$Pt = 1.09/Q^{0.26}$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Comment 20:

Technical Support Document - Page 2 Stack Summary: Please revise the items in the Operation column "Spent wash water tank #1 & #2" to include the associated atmospheric evaporator #1 and #2 which is the actual part of the system exhausting to stacks WR#1 and WR#2 as outlined in the permit application.

Response 20:

The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The fact described in this comment is noted in this Addendum to the TSD, and the permit is corrected as indicated in Response 1.

Comment 21:

Technical Support Document - Page 4 Potential to Emit (c) and Page 6 Part 70 Permit Determination: There is a clarification necessary.

In the section on Potential to Emit(c) on page 4 of the TSD the draft permit states that the existing source is subject to 326 IAC 20-8. As a deferred source under paragraph 326 IAC 20-8 as it is currently published on the IAC website the regulation shows a requirement to submit a Part 70 application by Dec. 9, 2000. This is the date which previously was required by the federal NESHAP for area sources prior to the federal allowance of an extension to Dec. 9, 2005 if allowed by permitting authorities.

In the section on Part 70 Permit Determination on page 6 of the TSD the draft permit states that the existing source is not subject to the Part 70 Permit requirements.

Please reword the MSOP draft permit to indicate if and when a Part 70 permit application is due in the future. As currently worded the draft permit is not clear on this requirement.

Response 21:

The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

A Part 70 permit is currently not required for this source. As indicated in Condition B.1, this permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the

Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements. There are not changes to the permit as a result of this comment.

Comment 22:

Technical Support Document - Page 7 Federal Rule Applicability (c): In our opinion the draft permit has exceeded the regulatory requirements of 40CFR 63 Subpart N which is adopted in 326 IAC 20-8-1. The normal requirement for an Ongoing Compliance Status report is annually. The only time that a semi-annual report is required is in the event of specific exceedances as outlined in 40CFR63.347 (h)(2). If both of the conditions of (1) excess emissions greater than 1% of the operating time, and (2) malfunctions of the scrubber greater than 5% of the total operating time occur the regulation requires semi-annual submittal of the ongoing compliance report until a request to reduce the frequency is approved.

It seems that the draft permit is promulgating more stringent requirements for a source that is not in violation of published regulations. This does not seem to be a reasonable approach to the regulatory process. More is not necessarily better. The federal and state regulations give IDEM the authority to require this more frequent reporting on a case-by-case basis. Since the facility is and has been in full compliance we question the need to impose these more stringent requirements in this case.

Response 22:

The requirements for the Ongoing Compliance Status Report are revised in Condition D.1.10(c) in the IDEM changes presented below.

IDEM Changes

Upon further review, the OAM has decided to make the following changes to Section D.1 of the Minor Source Operating Permit. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N. **The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.**

D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1][40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to Tanks B and C/D. A copy of this rule is attached. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

D.1.**3** ~~2~~ Chromium ~~Electroplating NESHAP~~ **Emissions Limitation** ~~[326 IAC 20-8-1] [40 CFR Part 63, Subpart N]~~ **[40 CFR 63.342(c)][40 CFR 63.343(a)(1)&(2)]**

~~This facility is subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC~~

~~20-8-1. A copy of this rule is attached.~~

(a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during times of malfunction.

~~(a)~~ **(b) The hard chromium electroplating tanks, identified as B and C/D above, are considered a large, existing hard chromium electroplating operation. During tank operation,** the Permittee shall **control chromium emissions discharged to the atmosphere from the tanks by** not allow**ing** the concentration of total chromium in the exhaust gas stream discharged to the atmosphere ~~from Stacks B and C/D~~ to exceed 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm)**[6.6 x 10^{-6} gr/dscf].** ~~of ventilation air (1.3 x 10^{-5} grains per dry standard cubic foot (gr/dscf)).~~

D.1.4 Work Practice Standards [40 CFR 63.342(f)]

~~(b)~~ The following work practice standards **apply to** ~~for~~ Tanks B and C/D ~~are also applicable~~:

~~(1)~~**(a)** At all times, including periods of startup, shutdown, ~~and~~ malfunction, **and excess emissions,** the Permittee shall operate and maintain **tanks** B and C/D, including the **packed bed/**composite mesh pad systems and monitoring equipment, in a manner consistent with **good air pollution control practices, consistent with** the Operation and Maintenance Plan (OMP) required by Condition ~~D.1.4.~~ **D.1.6.**

~~(2)~~**(b)** Malfunctions **and excess emissions** shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition ~~D.1.4.~~ **D.1.6.**

(c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.

~~(3)~~**(d)** Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.

~~(4)~~**(e)** Based on the results of the determination made under **paragraph (b)** ~~(3)~~, IDEM, OAM may require that the Permittee make changes to the OMP **required by Condition D.1.6**. Revisions may be required if IDEM, OAM finds that the plan:

(A) Does not address a malfunction **or period of excess emissions** that has occurred;

(B) Fails to provide for the operation of **tanks** B and C/D, the air pollution control techniques, or the **packed bed/**composite mesh pad systems and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or

(C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

The work practice standards that address operation and maintenance must be

followed during malfunctions and periods of excess emissions.

D.1.~~3~~ **5** Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit is required for these facilities and the **packed bed/**composite mesh pad systems.

D.1.~~4~~ **6** Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

(a) **The Permittee shall prepare** an Operation and Maintenance Plan (OMP) **to be implemented no later than the startup date of the tanks. The OMP** ~~in accordance with 40 CFR 63.342(f)(3) shall be prepared and maintained and~~ shall specify the operation and maintenance criteria for **tanks** B and C/D, the **packed bed/**composite mesh pad systems, and monitoring equipment, and shall include the following elements:

(1) For the packed bed/composite mesh-pad system (PBS/CMP):

~~(1)~~ **(A)** Quarterly visual inspection of the **device** ~~composite mesh pad systems~~ to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device;

~~(2)~~ **(B)** Quarterly visual inspection of the back portion of the mesh pads closest to the fan to ensure there is no breakthrough of chromic acid mist;

~~(3)~~ **(C)** Quarterly visual inspection of the duct work from the tanks to the control devices to ensure there are no leaks;

~~(4)~~ **(D)** Perform washdown of the composite mesh pads in accordance with manufacturer's recommendations.

~~(5)~~**(2)** A standardized checklist to document the operation and maintenance criteria for **tanks** B and C/D, the **packed bed/**composite mesh pad systems, and monitoring equipment;

~~(6)~~**(3)** Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions **or periods of excess emissions as indicated by monitoring data** do not occur;

~~(7)~~**(4)** A systematic procedure for identifying malfunctions **and periods of excess** of **tanks** B and C/D, the **packed bed/**composite mesh pad systems, and monitoring equipment; and for implementing corrective actions to address such malfunctions **and periods of excess emissions**.

(b) The Permittee may use applicable standard operating procedures (SOP) manuals, occupational safety and health administration (OSHA) plans, or other existing plans such as the PMP required in Condition **D.1.5** ~~D.1.3~~, as the OMP provided the alternative plans meet the criteria listed above in Condition **D.1.6(a).** ~~D.1.4(a).~~

(c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction **or a period of excess emissions** at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining **tanks** B and C/D, the **packed bed/**composite mesh pad systems, and monitoring equipment, during similar malfunction **or period of excess emissions** events, and a

program for corrective action for such events.

(d) If actions taken by the Permittee during periods of malfunction **or periods of excess emissions** are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.

(e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of **tanks** B and C/D or until **tanks** B and C/D are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMP on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.~~5~~ **7** Monitoring to Demonstrate Continuous Compliance [40 CFR 63.343 (c)(1)]

(a) Performance tests demonstrating initial compliance for **tank** B were performed on January 6, 1997 and January 7, 1997.

During the initial performance tests, it was determined that the average pressure drop across the system was 1.66 inches of water and the average outlet chromium concentration ~~was~~ **is** 0.0035 mg/dscm.

(b) Performance tests demonstrating initial compliance for **tank** C/D were performed on December 18, 1996 and December 19, 1996.

During the initial performance tests, it was determined that the average pressure drop across the system was 1.84 inches of water and the average outlet chromium concentration ~~was~~ **is** 0.0014 mg/dscm.

~~(c) The Permittee shall monitor and record the pressure drop across each composite mesh pad system once each day that the corresponding tank (B or C/D) is in operation.~~

~~(d) The composite mesh pad system exhausting to stack B shall be operated within 1.66 ± 1 inch of water column, the pressure drop value established during the initial performance tests, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests that may be conducted in the future.~~

~~(e) The composite mesh pad system exhausting to stack C/D shall be operated within 1.84 ± 1 inch of water column, the pressure drop value established during the initial performance tests, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests that may be conducted in the future.~~

~~D.1.6 Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.344]~~

(c) The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the **tanks are** ~~facility is~~ in compliance. **If testing is required by the IDEM, compliance with the limits specified in Condition D.1.3 shall be determined by a performance test** ~~Future tests that may be required shall be~~ conducted in accordance with the provisions of 40 CFR 63.344 **and Section C - Performance Testing**.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)]

(a) Pursuant to 40 CFR 63.343(c)(3) and 63.343(c)(1)(ii), when using a packed bed scrubber in conjunction with a composite mesh pad system to comply with the limits specified in Condition D.1.3, the Permittee shall monitor and record the pressure drop across the composite mesh pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh pad system shall be operated within ± 1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.

(b) Tank operation or operating time is defined as that time when a part is in the tanks and the rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operation time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts is considered operating time.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.~~7~~ **9** Record Keeping Requirements [40 CFR 63.346]

~~(a)~~ The Permittee shall maintain records to document compliance with Conditions **D.1.3, D.1.4 and D.1.6** ~~D.1.1 and D.1.4~~ using the forms provided with this permit. These records shall be maintained in accordance with the Section C condition entitled "General Record Keeping Requirements" of this permit, ~~be kept for a period of five (5) years,~~ and include a minimum of the following:

~~(1)~~ **(a)** Inspection records for the **packed bed/**composite mesh pad systems and monitoring equipment to document that the inspection and maintenance required by Conditions ~~D.1.3~~ **D.1.7** and ~~D.1.4~~ **D.1.8** have taken place. The record can take the form of a checklist and should identify the following:

~~(A)~~**(1)** The device inspected;

~~(B)~~**(2)** The date of inspection;

~~(C)~~**(3)** A brief description of the working condition of the device during the inspection, including any deficiencies found; and

~~(D)~~**(4)** Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.

~~(2)~~**(b)** Records of all maintenance performed on **tanks** B and C/D, the **packed bed/**composite mesh pad systems and monitoring equipment.

~~(3)~~**(c)** Records of the occurrence, duration, and cause (if known) of each malfunction of **tanks** B and C/D, the **packed bed/**composite mesh pad systems and monitoring equipment.

(d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks B and C/D, the packed bed/composite mesh pad systems and monitoring equipment as indicated by monitoring data collected

in accordance with this condition.

~~(4)~~**(e)** Records of actions taken during periods of malfunction when such actions are inconsistent with the OMP.

~~(5)~~**(f)** Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.

~~(6)~~**(g)** Test reports documenting results of all performance tests**.**

(h) And all measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.

~~(7)~~**(i)** Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.

~~(8) The specific identification of each period of excess emissions, as indicated by monitoring data, that occurs during periods of malfunction of B and C/D, the composite mesh pad systems, and monitoring equipment.~~

~~(9) The specific identification of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of B and C/D, the composite mesh pad systems, and monitoring equipment.~~

~~(10)~~**(j)** The total process operating times**, as defined by D.1.8(b),** of **each tank (**B and C/D**),** during the reporting period.

(k) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

~~(11)~~**(l)** All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition **D.1.10** ~~D.1.8~~.

~~(b) Operating time for chrome electroplating is defined as that time when the rectifier is turned on and a part is in the tank. When there is no part in a tank for fifteen (15) or more minutes, that time will not be considered operating time; likewise, if the time between placing a part in the tank is less than fifteen (15) minutes, that time will be considered part of the operating time.~~

D.1.8**10** Reporting Requirements **[326 IAC 3-6-4(b)][40 CFR 63.344(a),** ~~40 CFR~~ 63.345 & 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) Initial Notifications
The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR Part 63, Subpart N. The notification shall be submitted no later than one hundred eighty (180) days after the compliance date and shall contain the information listed in 40 CFR 63.347(c)(1).

(2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR 63.347(e)(2).

(A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).

(B) The NCS for tanks B and C/D shall be submitted to IDEM, OAM immediately.

(3) Notification of Construction or Reconstruction
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks B and C/D without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.

(A) The NCR shall contain the information identified in 40 CFR 63.345(b)(2) and (3).

(B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.

(C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks B and C/D serves as this notification.

(D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Performance Test Results
The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report
The Permittee shall prepare summary reports to document the ongoing compliance status of tanks B and C/D using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks B and C/D are located at a site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

(1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).

(A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.

(B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from July 1 to December 31.

(2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:

(A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.8(b) for the reporting period; or

(B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.8(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

~~(a) In accordance with 40 CFR 63.345, a notification must be submitted to IDEM, OAM prior to any change, modification, or reconstruction of B or C/D (including addition of duct work to the composite mesh pad system) or construction of a new facility or source (affected or nonaffected, as defined in 40 CFR 63.344(e)). Notification shall be submitted as soon as practicable, but no sooner than thirty (30) days before the date construction or reconstruction commences.~~

~~(b) In accordance with 40 CFR 63.347(c)(2), a notification of the date when construction or reconstruction was commenced shall be submitted to IDEM, OAM no later than thirty (30) calendar days after such date. In addition, a notification of the actual date of startup of the new or reconstructed facility or source shall be submitted to IDEM, OAM within thirty (30) calendar days after such date. Additional notifications required under 40 CFR 63.345 and 63.347 shall be specified as they become due.~~

~~(c) The Permittee shall notify IDEM, OAM in writing of their intention to conduct a performance test at least sixty (60) calendar days before the test is scheduled to begin. Reports of performance test results shall be submitted no later than forty-five (45) days following the completion of the performance test, and shall be submitted as part of a notification of compliance status as described in 40 CFR 63.347(e), to the address listed in the Section C condition entitled "Performance Testing" of this permit.~~

~~(d) The Permittee shall submit a summary report to document the ongoing compliance status of B and C/D using the Ongoing Compliance Status Report form provided with this permit. The report shall contain the information specified in 40 CFR 63.347(g)(3) that is applicable.~~

~~(1) This report shall be submitted semiannually on a calendar year basis, unless otherwise directed by IDEM, OAM. The report shall be submitted within thirty (30) days after the end of each reporting period, which ends June 30 and December 31 respectively.~~

~~(2) If there are any exceedances of the chromium air emission limit contained in Condition D.1.1, then quarterly reports shall be submitted until a request to reduce reporting frequency, according to the procedures of 40 CFR 63.347(g)(2), is approved.~~

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name:	**Chrome Deposit Corporation**
Source Location:	**6640 Melton Road, Portage, Indiana 46368**
County:	**Porter**
SIC Code:	**3470**
Operation Permit No.:	**MSOP 127-11699-00093**
Permit Reviewer:	**CarrieAnn Ortolani**

The Office of Air Management (OAM) has reviewed an application from Chrome Deposit Corporation relating to the operation of a chromium electroplating source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices and emission units and control devices that did not require permits under 326 IAC 2-1, but require permits under 326 IAC 2-5 and 326 IAC 2-6:

(a) One (1) hard chrome plating tank, identified as Tank B, constructed prior to December 16, 1993 and reconstructed as preventive maintenance in 1999, using a hexavalent chromium bath and having a rectifier capacity of 15,000 amps and a maximum cumulative rectifier capacity of 88,200,000 amp-hours, equipped with an evaporator/cooler and a packed bed/composite mesh pad scrubber as control, and exhausting to stack B.

(b) One (1) hard chrome plating tank, identified as Tank C/D, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 30,000 amps and a maximum cumulative rectifier capacity of 176,400,000 amp-hours, equipped with an evaporator/cooler and a packed bed/composite mesh pad scrubber as control, and exhausting to stack C/D.

(c) Two (2) wash tanks, identified as Wash Tank B and Wash Tank C/D, using 250 pounds per hour of water and 5 pounds per hour of soap, constructed prior to December 16, 1993.

(d) Two (2) spent wash water holding tanks, identified as Nos. 1 and 2, exhausting to stacks WR#1 and WR#2.

(e) Three (3) hot water boilers, constructed in 1984, fired by natural gas, exhausting to stacks B1, B2 and B3, capacity: 0.413 million British thermal units per hour, each.

(f) One (1) forced air furnace, identified as 2FF, maximum heat input capacity: 0.117 million British thermal units per hour.

(g) One (1) forced air furnace, identified as CRF, maximum heat input capacity: 0.075 million British thermal units per hour.

(h) One (1) forced air furnace, identified as LRF, maximum heat input capacity: 0.084 million British thermal units per hour.

(i) One (1) forced air furnace, identified as OF, maximum heat input capacity: 0.054 million British thermal units per hour.

(j) One (1) make-up air heater, identified as Rapid, maximum heat input capacity: 1.75 million British thermal units per hour.

(k) One (1) make-up air heater, identified as Thermo cycler, maximum heat input capacity: 0.4 million British thermal units per hour.

(l) One (1) hot water heater, identified as LRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

(m) One (1) hot water heater, identified as CRWH, maximum heat input capacity: 0.04 million British thermal units per hour.

(n) Two (2) EDT surface machining machines equipped with torit particulate air filters, one exhausting to stack TF and one exhausting inside the building, capacity: 40,000 pounds per hour, total.

(o) One (1) wet finishing surface grinder, capacity: 20,000 pounds per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

There are no proposed new facilities at this source during this review process.

Existing Approvals

There are no approvals on file at IDEM, OAM for this source. No approvals were required prior to December 25, 1998.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
B	Chrome plating tank B	40.0	2.0	7,000	65
C/D	Chrome plating tank C/D	40.0	2.3	8,000	65
WR#1	Spent wash water tank #1	20.0	1.3	1,000	100
WR#2	Spent wash water tank #2	20.0	1.3	1,000	100
B1	Boiler 1	20.0	0.8	100	200

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
B2	Boiler 2	20.0	0.8	100	200
B3	Boiler 3	20.0	0.8	100	200
TF	East Torit Filter, EDT machine	12.0	0.8	1,000	65

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 22, 1999, with additional information received on January 25, 2000.

Emission Calculations

Chromium emissions (Single HAP) from the biggest chromium electroplating source in Indiana are less than ten (10) tons per year and Chrome Deposit Corporation is a much smaller source in comparison. Therefore, no emission calculations were necessary for the chromium electroplating because the chromium emissions from this source will be less than ten (10) tons per year. See Appendix A (pages 1 through 5) of this document for detailed emissions calculations for combustion and machining and grinding operations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	15.0
PM_{10}	15.1
SO_2	0.010
VOC	0.092
CO	1.40
NO_X	1.66

HAPs	Potential To Emit (tons/year)
Chromium	< 10
Benzene	3.50E-5
Dichlorobenzene	2.00E-5
Formaldehyde	1.25E-3
Hexane	2.99E-2
Toluene	5.66E-5
Lead	8.30E-6
Cadmium	1.83E-5
Manganese	6.30E-6
Nickel	3.50E-5
TOTAL	< 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of each pollutant is less than 250 tons per year and the potentials to emit VOC and NO_X are less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPS is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(c) The existing source is subject to 326 IAC 20-8 but not subject to 326 IAC 2-5.5-1(b)(2), Registration, because the source is not a decorative coating plant. The source is a hard chromium electroplating source and the source emits less than major source levels (see (a) and (b) above). Therefore, the source is subject to the provisions of 326 IAC 2-6.1-3(a).

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Potential to Emit (tons/year)						
Process/facility	PM	PM_{10}	SO_2	VOC	CO	NO_X	HAPS
One (1) hard chrome plating tank, Tank B	0.00	0.00	0.00	0.00	0.00	0.00	<10
One (1) hard chrome plating tank, Tank C/D	0.00	0.00	0.00	0.00	0.00	0.00	<10
Three (3) hot water boilers	0.010	0.041	0.003	0.030	0.456	0.543	0.010
Four (4) forced air furnaces, two (2) makeup air heaters and two (2) hot water heaters	0.021	0.085	0.007	0.062	0.942	1.12	0.021
Two (2) EDT surface machining machines	15.0	15.0	0.00	0.00	0.00	0.00	0.00
One (1) surface grinder	0.0007	0.0007	0.00	0.00	0.00	0.00	0.00
Total Emissions	15.0	15.1	0.010	0.092	1.40	1.66	<10 each HAP; < 25 total HAPs

County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	severe nonattainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Porter County has been designated as non-

attainment for ozone. Therefore, VOC and NO_X emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Porter County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	**Emissions** (ton/yr)
PM	0.182
PM_{10}	0.277
SO_2	0.010
VOC	0.092
CO	1.40
NO_X	1.66

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 25 tons per year.

(c) These emissions were based on the potential to emit of the entire source after controls.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) VOC and NO_X are less than 25 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPS is less than 25 tons/year.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N.

The hard chrome electroplating tanks, identified as Tank B and Tank C/D, are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 14, (40 CFR 63, Subpart N, and 326 IAC 20-8-1). Pursuant to 40 CFR 63, Subpart N, and 326 IAC 20-8-1, the tanks are subject to the following conditions:

(1) The Permittee shall not allow the concentration of total chromium in the exhaust gas stream discharged to the atmosphere from the tanks to exceed 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) of ventilation air (6.6×10^{-6} grains per dry standard cubic foot (gr/dscf)).

(b) An Operation and Maintenance Plan (OMP), in accordance with 40 CFR 63.342(f)(3) shall be prepared and maintained and shall specify the operation and maintenance criteria for the tanks, the composite mesh pad system/ packed bed scrubbers and monitoring equipment.

(c) The Permittee shall submit summary reports to document the ongoing compliance status of the tanks using the Ongoing Compliance Status Report form. This report shall contain the information in 40 CFR 63.347(g)(3) that is applicable.

(1) This report must be completed semiannually on a calendar year basis, unless otherwise directed by IDEM, OAM. The report shall be submitted within thirty (30) days after the end of each reporting period (which ends on June 30 and December 31, respectively) to the address listed in Section C - General Reporting Requirements.

(1) If there are any exceedances of the chromium air emission limit contained in Condition D.1.1, then quarterly reports shall be submitted until a request to reduce reporting frequency, according to the procedures of 40 CFR 63.347(g)(2), is approved.

(d) Performance tests demonstrating initial compliance for the tank C/D were performed on December 18, 1996 and December 19, 1996. Performance tests demonstrating initial compliance for the tank B were performed on January 6, 1997 and January 7, 1997.

(1) The Permittee shall monitor and record the pressure drop across the composite mesh pad system/ packed bed scrubbers once each day that the corresponding tank (B or C/D) is in operation.

(2) The composite mesh pad system/packed bed scrubber exhausting to stack B shall be operated within 0.66 to 2.66 inches of water column, the pressure drop value established during the initial performance tests, or shall be

operated within the range of compliant values for pressure drop established during multiple performance tests that may be conducted in the future.

(3) The composite mesh pad system/ packed bed scrubber exhausting to stack C/D shall be operated within 0.84 to 2.84 inches of water column, the pressure drop value established during the initial performance tests, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests that may be conducted in the future.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Porter County and the potential to emit VOC and NO_X is less than ten (10) tons per year. The potential to emit PM_{10} is less than one-hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The three (3) boilers, known as B1, B2 and B3, all constructed in 1984, with a total heat input capacity of 1.24 million British thermal units per hour, must have PM emissions of no more than 0.6 pound per million British thermal units in order to comply 326 IAC 6-2-4. The following equation is given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in

the operation permit shall be used.

For the three (3) boilers:
$Pt = 1.09/(1.24)^{0.26} = 1.03$ lb/MMBtu heat input

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Therefore, the three (3) boilers are limited to emissions of 0.6 pound per million British thermal units.

Based on Appendix A, the potential PM emission rate is:

The potential PM emissions from the three (3) boilers limited to 0.6 pound PM per million British thermal units are:

0.010 tons/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.002 lbs/hr
(0.002 lbs/hr / 1.24 MMBtu/hr) = 0.002 lbs PM per MMBtu

Therefore, the three (3) boilers will comply with this rule.

326 IAC 6-3-2 (Process Operations)

(a) The particulate matter (PM) from each of the two (2) EDT machines shall be limited to less than 19.2 pounds per hour, each, when operating of a process weight rate of 20,000 pounds per hour, each. Since the potentials to emit PM before controls are 1.71 pounds per hour, each, the two (2) EDT machines will comply with this rule.

(b) The particulate matter (PM) from each of the wet finishing surface grinder shall be limited to less than 19.2 pounds per hour when operating of a process weight rate of 20,000 pounds per hour. Since the potential to emit PM before controls is 0.00017 pounds per hour, the surface grinder will comply with this rule.

The limitations were calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

Conclusion

The operation of this chromium electroplating source shall be subject to the conditions of the attached proposed Minor Source Operating Permit 127-11699-00093.

Appendix A: Emission Calculations
Process Operations

Company Name: Chrome Deposit Corporation
Address City IN Zip: 6640 Melton Road, Portage, Indiana 46368
MSOP: 127-11699
Plt ID: 127-00093
Reviewer: CarrieAnn Ortolani
Date: December 22, 1999

Emission Unit	Torit Filter	Stack	Flow Rate (acfm)	Outlet Grain Loading (gr/acfm)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Control Efficiency	Potential Emissions (lbs/hr)	Potential Emissions (tons/yr)	Process Weight Rate (lbs/hr)	Allowable Emissions (lbs/hr)
EDT machine	TF	TF	1000	0.002	0.017	0.075	99.0%	1.71	7.51	20000	19.2
EDT machine	TF	inside	1000	0.002	0.017	0.075	99.0%	1.71	7.51	20000	19.2
					0.034	0.150		3.43	15.0		

Emission Unit		Potential Emissions (lbs/hr)	Potential Emissions (tons/yr)	Process Weight Rate (lbs/hr)	Allowable Emissions (lbs/hr)
Wet Surface Grinder		1.70E-04	7.45E-04	20000	19.2

Methodology

Controlled Emissions (lbs/hr) = gr/acfm x acfm x 60 minutes/hr / 7000 gr/lb
Uncontrolled Emissions (lbs/hr) = Controlled Emissions (lbs/hr) / (1 - Control Efficiency)
Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton
Allowable Emissions (lbs/hr) = 4.10 x (Process weight (lbs/hr) / 2000 lbs/ton)^0.67 [326 IAC 6-3-2]
Wet Surface Grinder emissions represented by conservative emissions supplied by the applicant.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Chrome Deposit Corporation**
Address City IN Zip: **6640 Melton Road, Portage, Indiana 46368**
MSOP: **127-11699**
Plt ID: **127-00093**
Reviewer: **CarrieAnn Ortolani**
Date: **December 22, 1999**

Four (4) furnaces, two (2) makeup air heaters and two (2) hot water heaters.

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.56	22.43

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.021	0.085	0.007	1.12	0.062	0.942

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Chrome Deposit Corporation**
Address City IN Zip: **6640 Melton Road, Portage, Indiana 46368**
MSOP: **127-11699**
Plt ID: **127-00093**
Reviewer: **CarrieAnn Ortolani**
Date: **December 22, 1999**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.355E-05	1.346E-05	8.410E-04	2.018E-02	3.812E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.606E-06	1.233E-05	1.570E-05	4.261E-06	2.355E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Chrome Deposit Corporation**
Address City IN Zip: **6640 Melton Road, Portage, Indiana 46368**
MSOP: **127-11699**
Plt ID: **127-00093**
Reviewer: **CarrieAnn Ortolani**
Date: **December 22, 1999**

Three (3) Boilers

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.24	10.85

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.010	0.041	0.003	0.543	0.030	0.456

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Chrome Deposit Corporation**
Address City IN Zip: **6640 Melton Road, Portage, Indiana 46368**
MSOP: **127-11699**
Plt ID: **127-00093**
Reviewer: **CarrieAnn Ortolani**
Date: **December 22, 1999**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.140E-05	6.512E-06	4.070E-04	9.768E-03	1.845E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.713E-06	5.970E-06	7.598E-06	2.062E-06	1.140E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.